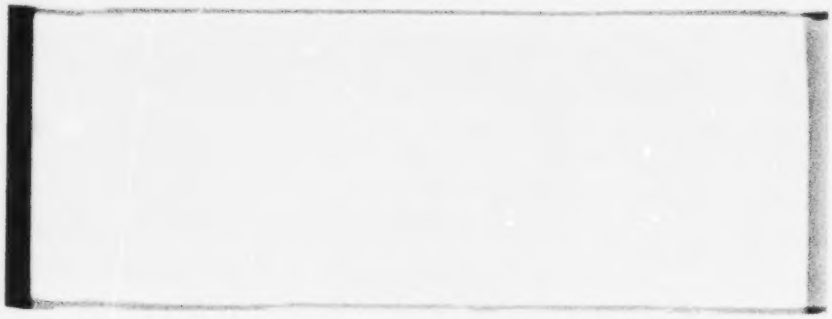

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Department of Fisheries

The Benefits of Using Exchange Rate Hedges in the Fishery

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Executive Summary

- Nova Scotia exports 75% of its fish landings and the United States purchases 73% (1986) of the value of our exports, i.e., $468,000,000.

- During Jan./86 to Jan./87, as an example of currency fluctuations, the Canadian dollar strengthened by $ .07 against the U.S. dollar. Unprotected currency positions could be translated into $ .07 x $468 million = $32.8 million in currency losses if all the $468 million remained unprotected. The actual extent of hedging (protecting) against currency losses is unknown so that $32.8 million may be overstated.

- The financial markets offer techniques that are widely accepted as insurance policies against currency losses attributable to fluctuating currencies. The banks offer forward sales contracts and investment dealers/brokers/commodity firms use the futures market as a hedging forum.

- Hedging foreign exchange, i.e., protecting against fluctuating currency movements offers the following services to a fish exporter:

  a) During periods of time when the Canadian dollar is strengthening against the U.S. dollar, fish exporters can lock in a currency rate using hedging techniques and avoid suffering currency losses.

  b) During periods of time when the Canadian dollar is weakening against the U.S. dollar, windfall currency gains are not realized if the fish exporter remains hedged, but he is protected against adverse currency movements.

- Locking in exchange rates through hedging techniques enables an exporter to accurately budget Canadian dollar revenues and eliminates possible foreign exchange losses which may result if the Canadian dollar should strengthen. It does, however, sacrifice any windfall gains if the Canadian dollar should weaken.

- A fish exporter must make a corporate decision as to whether his company is in the fish business or operates as a foreign exchange speculator. The advantages of easier budgeting plus insurance against currency losses must be measured against potential gains which may be realized by speculating that the market will move in his favour.

- The Canadian dollar is presently strengthening considerably against the U.S. counterpart. It has broken its 10 year downward trend against the U.S. dollar. There is a possibility of continued strength. Economic fundamentals in Canada are strong and it is possible that the Canadian dollar could continue in its upward mode in the future. Hedging foreign exchange in such an environment becomes a necessary business activity.

- Advisory services offered by investment dealers/commodity firms will advise clients to hedge or remain unhedged as conditions warrant. This is a very useful service to an exporter.

Recommendations

- Make available to exporters information regarding the advantages of hedging against currency fluctuations:
    - press releases
    - newspaper articles, especially in fisheries related papers
    - other public information avenues
- Set up meetings with banks which deal with forward sales or firms dealing in the futures market and representatives of the seafood association to discuss and have presentations on foreign exchange hedging.
- Other sectors in the Nova Scotia economy engaged in export activities should also be made aware of the benefits of hedging foreign exchange. A prime example would be the Christmas tree industry which has sales to the U.S. market concentrated in the month of December.

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The Benefits of Using Exchange Rate Hedges in the Fishery

Introduction

The fishery can be beset by various influences over which it has very little control and which can adversely affect profits for the industry. One of these external influences is exchange rates. Over the past couple of years, the inability of the central banks of the world to stabilize currency exchange rates has been readily apparent. At times, exchange rate volatility is the largest risk faced by a business person. It can be either a blessing or a curse for the Canadian fishery depending upon the trend and the value of the Canadian dollar vis-a-vis the exchange rate in the country of destination for our fish exports. This is especially true of the United States which buys 73% (1986) of Nova Scotia's fish exports. In fact, Nova Scotia exports around 75% of its fish landings and thus can be at the mercy of international currency values because of its export orientation.

People in the fishery may believe that fluctuations in currencies are simply inevitable costs that they have to endure whenever currency values turn against them. It is probable that the larger fish processing concerns in Nova Scotia take steps to protect themselves against fluctuating currencies because of the extent of international trade in which they are involved. However, even smaller firms can take advantage of the various techniques available in the financial markets that can be used effectively as hedging instruments to counterbalance exchange rate losses.

It is the purpose of this report to demonstrate how financial instruments can be used beneficially to offset currency losses when selling fish in foreign markets. It is also to be shown that at this particular point in time, in the near to medium term future, currency hedges are expected to be extremely useful as the Canadian dollar is in an appreciating trend against its major trading partner - the U.S.

The Cost of Fluctuating Currency Rates

In periods of fluctuating currency values, there can be large associated costs involved in carrying out normal business transactions. To demonstrate how these costs are actually incurred, the following example portrays an unprotected currency position in a transaction based on actual currency levels in 1985 to 1988 between the U.S. and Canadian dollars. Consider the following exchange rates in the time periods indicated:

Jan. 1/85	$1 U.S.	=	$1.31 Cdn.
Dec. 31/85	$1 U.S.	=	$1.40 Cdn.

Scenario:

The Nova Scotia fish processor gets paid in $ U.S. and then he converts to $ Cdn. at the above rates.

- Processor sells 500,000 lbs. of fish @ $1.25/lb. $ U.S. in both January and December.

Jan./85 500,000 lbs. @ $1.25/lb. $ U.S. = $625,000 U.S. @ $1.31 Cdn. = $818,750Cc
Dec./85 500,000 lbs. @ $1.25/lb. $ U.S. = $625,000 U.S. @ $1.40 Cdn. = $875,000Cc

∴ currency gain of + $ 56,250 Cdn.

Jan./86	$1 U.S.	=	$1.439 Cdn.
Mar./88	$1 U.S.	=	$1.25 Cdn.

- Processor sells 500,000 lbs. of fish @ $1.25/lb. $ U.S. in both January 1986 and March 1988.

Jan./86 500,000 lbs. @ $1.25/lb. $ U.S. = $625,000 U.S. @ $1.439Cdn. = $899,375Cc
Mar./88 500,000 lbs. @ $1.25/lb. $ U.S. = $625,000 U.S. @ $1.25 Cdn. = $781,250Cc

∴ currency loss of - $118,125 Cdn.

During the 1985 period listed above, the Canadian dollar was in a depreciating trend against the U.S. dollar and the exchange rate fluctuations favoured the Canadian processor since he was getting paid in ever increasing U.S. dollar terms. However, the Jan./86 to Mar./88 period was not favourably disposed to the Canadian fish processor since the Canadian dollar started a substantial appreciation against its U.S. counterpart, which means getting paid in a depreciating currency.

If exchange rates can be locked in over a period of time, unfavourable currency movements and associated losses can be avoided. As an example of the extent of losses that have been incurred, consider that in 1986, Nova Scotia exported $468,000,000 of fish to the U.S. and during the same time period, the U.S. dollar depreciated against the Canadian currency. Example:

Jan./86	$1 U.S.	=	$1.44 Cdn.
Jan./87	$1 U.S.	=	$1.37 Cdn.
Difference (currency loss)			$0.07 Cdn.

If during January 1986, a currency value of $ U.S. = $1.44 Cdn. could have been locked in for the duration, then a currency loss of $32.8 million ($468.0 @ .07 = $32.8) could have been avoided throughout this time period. It is appreciated that the large fishing companies in the province have engaged in forward sales of currency with banks such that the figure of $32.8 million is overstated, but the example should be noted because it is still applicable today.

The use of techniques that are available in the financial markets to protect against potential currency losses can be considered as an insurance policy, especially in today's volatile markets where hedging foreign exchange exposure is a

recognized necessity. Two techniques are discussed: the future market and forward sales by banks. Also Appendix I contains a short overview on the outlook for the Canadian dollar, which directly affects the fishing industry.

The Futures Market

The futures market originally started as a forum for the buying and selling of contracts on commodities such as grain, corn, cattle, etc., for delivery at a future date. For example, say, a farmer, plans to raise 5,000 bushels of corn which he expects to be ready for market sale in the fall of the year. It is now January. However, in the fall of the year, he has no idea of what price corn will fetch. His costs of production are estimated at $1/bushel so that he hopes to receive more than $1/bushel for his corn in the fall.

This farmer has the following choices available to him:

1) He can wait and sell his corn in the fall hoping that the price will be higher than $1/bushel. If he follows this course of action, he is taking substantial risks and is actually speculating on a future event, i.e., the price of corn. Corn might actually turn out to be $2/bushel in the fall and he will make substantial profit or it might be 50¢ and large losses will be incurred. This course of action turns the farmer into a real speculator.

2) He can sell his corn at the present time in the futures market and lock in a price and a profit for his corn. For example, he sells 5,000 bushels on, say, the November contract to a speculator (the buyer) who hopes to profit from the possibility of higher corn prices in the future. The speculator takes the risk away from the farmer. To understand these transactions, consider the following:

Example: Establishing an early price for a corn crop.

Timing	Cash Market	Futures Market
January	Plan to grow 5,000 bushels of corn	Sell 5,000 bushels on November contract for $1.50 ∴ lock in equivalent of $1.50/bushel
November	Sell cash corn for .90	Buy back futures November contract for $ .90

Net Selling price:

Cash Price	$ 0.90
Plus Futures Profit	$ 0.60
Net Price locked in	$ 1.50

The farmer therefore locks in a profit in January on his corn crop, less of course his transaction costs and something called "basis" - which is the actual difference in January between the cash cost for corn at that time and the futures price for corn on the November contract.

Following the above course of action would have been far superior for the farmer than just selling corn at harvest in November, when he would have received only $ 0.90. In actual practice, the farmer would probably only hedge a percentage of his expected corn production, i.e., maybe 50-60% due to uncertainties such as weather in his amount of corn production for the year ahead.

Using the same example, if the November cash price for corn turned out to be $2/bushel in November, he would have foregone a much larger profit since he locked in at $1.50/bushel in January. For example:

Cash Price in November	$ 2.00
Less Futures loss:	
e.g. In January sell November contract @ 1.50	
In November buy back November contract @ 2.00	- 0.50
	$ 1.50

This is the essence of how the futures market works and actually why it was originally developed, i.e., to let risk takers (speculators) assume the risk of buying commodities for profit and for farmers or anyone else dealing in fluctuating markets to use the futures exchange as insurance against unforeseen future price swings.

The above example of the corn farmer is a simplistic picture of how hedging works, but it is a realistic portrayal of the advantages of using hedging techniques as insurance policies. There are many complex versions of using the hedging technique, such as legging in and legging out of contracts throughout the duration of the contract. However, such versions bring back risk into the hedging technique and therefore legging in and legging out are only for those persons so inclined. It is not intended in the discussion herein.

Foreign Exchange Transactions

The Chicago Mercantile Futures Exchange has a pit for buying and selling the Canadian dollar in its International Monetary Market (IMM) division and as such can be used to hedge the U.S. dollar to protect against fluctuations in the exchange rate between the two currencies. The specifications for the Canadian dollar are as follows:

Contract size	$100,000 Cdn.
Quotation unit	$/Cdn.
Minimum contract price change	$.0001

Contract months traded: June, September, December, March, June

Example 1 - Speculation: A speculator believes that the Canadian dollar is going to appreciate against the U.S. dollar and he decides in March to purchase 10 Sept./88 Canadian dollar contracts at .7900 $ U.S. He guesses correctly and the Canadian dollar goes up to .8100 $ U.S. in June at which time he closes or offsets his buy position by selling. His profit transaction would be as follows:

10 contracts x (.8100 - .7900) x 100,000 (size of one contract) = $20,000

If he guesses wrong, his losses are leveraged equally on the downside, if he does not close out his position. Also a speculator must maintain a margin account with his broker and if the value of his futures contracts fall below a predetermined amount, i.e., it is marked to market daily, then the speculator must add money to his trading account or be sold out by his broker.

Using the futures market for hedging purposes, as opposed to speculating, does not require the maintenance of a margin account. This is negotiated with the brokerage firm.

Example 2 - Hedging for a Canadian Exporter: An exporter, who receives payment for his products in U.S. dollars, knows that a decline in the U.S. dollar will produce a foreign exchange loss in the value of his U.S. dollar receivables; thus he needs a hedge on the U.S. dollar. Since there is no Canadian futures contract calling for delivery of U.S. dollars, he must use the Chicago futures contract in Canadian dollars in reverse. He must protect himself from an increase in the value of the Canadian dollar (the inverse of a falling U.S. dollar) so that the hedge must be designed to profit from any appreciation. Hedge examples taking into account 3 different scenarios for the Canadian dollar indicate the effectiveness of such a strategy.

Scenario 1: Cdn. $ appreciates against U.S. $ from Jan.:
Cdn. $ = .79 U.S. to Sept. $ Cdn. = .81 U.S.

Timing	Cash Market	Futures Market
Jan.	Plan to sell $500,000 U.S. worth of product and receive payment in September, i.e., 1 Cdn. $ = $ .79 U.S. $500,000 U.S. = $632,911 Cdn.	Buy 6 $ Cdn. contracts @ .79 as per calculations: i.e., $\frac{\$500,000 \text{U.S.}}{.79} \div 100,000$ Cdn. = 6.32, say, 6 contracts
Sept.	In Sept., convert $500,000U.S. payment back into $ Cdn., i.e., 1 Cdn. $ = $ .81U.S. 500,000 U.S. = $617,911 Cdn.	Sell 6 $ Cdn. contracts @ .81

Net transactions:

Cash Market =	$632,911 Cdn. - $617,911 Cdn. =	(15,000) loss
Futures Market =	(.81-.79) x (100,000 Cdn. per contract) x 6 contracts =	12,000 gain
Net Currency Position		(3,000) loss

Conclusion: An unhedged currency position would result in a $15,00 Cdn loss. A hedged position cuts losses substantially

Scenario 2: Cdn. $ depreciates against U.S. $ from Jan.:
Cdn. $ = .79 to Sept. $ Cdn. = .77

Timing	Cash Market	Futures Market
Jan.	In January, $1 Cdn. = $ .79U.S. $500,000 U.S. = $632,911 Cdn.	Buy 6 $ Cdn. contracts @ .79
Sept.	In Sept., $1 Cdn. = $ .77U.S. $500,000 U.S. = $649,350 Cdn.	Sell 6 $ Cdn. contracts @ .7

Net transactions:

Cash Market =	$649,350 Cdn. - $632,911 Cdn. =	16,439 gain
Futures Market =	(.79-.77) x 6 x 100,000 Cdn. =	(12,000) loss
Net Currency Position		4,439 gain

Conclusion: The Canadian exporter foregoes a larger currency gain that he could have received without hedging but receives insurance against adverse currency movements.

Scenario 3: The Canadian dollar remains unchanged against the U.S. dollar.

Timing	Cash Market	Futures Market
Jan.	1 Cdn. $ = $ .79 U.S. $500,000 U.S. = $632,911 Cdn.	Buy 6 $ Cdn. contracts @ .7
Sept.	1 Cdn. $ = $ .79 U.S. $500,000 U.S. = $632,911 Cdn.	Sell 6 $ Cdn. contracts @.7

Net transactions:
Cash Market = 0
Futures Market = 0

Conclusion: There is no gain and no loss, but perhaps the exporter can have a more restful sleep at night.

It should be noted that the above three examples of using hedged currency positions have, for the sake of clarity, avoided transaction costs and the effect of "basis" - both of which are costs associated with the purchase of future contracts. Examples of such costs are as follows:

Commission rates: $70 U.S. per contract - total to open and close

basis: the nearer term contracts carry less of a basis change. The farther out contracts carry a higher basis charge, e.g.,

	June	Sept.	Dec.
Spot rate March 31	.8088	.8088	.8088
Future rate	.8075	.8043	.8020
basis	.0013	.0045	.0068

x # of contracts
x 100,000

Basis also varies with the volatility of the underlying futures contract, such that it can be smaller or larger than the above example depending upon volatility at time of purchase.

In conclusion, the futures market does offer hedging opportunities for fish exporters but it is generally perceived to be an area of high risk and speculation. This is not the case, if one is engaged in pure hedging as in the illustrated examples. The futures market in currencies has a lot to offer for fish processors willing to avoid currency speculation.

The same type of hedging opportunities is available through banks with a technique termed forward sales contracts. A discussion of this technique follows. Appendix 2 contains a snapshot comparison of hedging currencies through the futures market and through forward sales contracts.

Bank Forward Sales

Chartered banks offer forward sales contracts to hedge exchange rate costs for businesses operating in international markets. For example, in the fish processing industry, National Sea Products uses forward sales contracts as insurance against adverse currency fluctuations (conversation with National Sea Products).

The manner in which forward sales contracts are used to offset currency losses is similar to hedging currencies in the futures market. For instance, a fish processing firm expecting receivables in U.S. currency of $500,000 in a particular future month would probably arrange a forward sale contract with a bank for the $500,000 receivable it expects, especially in an environment of a strengthening Canadian dollar. Thus it enters into a contract with the bank in, say, March to sell $500,000 U.S. at the prevailing 6 month forward rate. Six months later, upon receipt of its receivables, it converts its $500,000 U.S. back

into Canadian currency at the contract price negotiated in March. Consider the following example based upon actual forward sales rates:

Example: Forward Contract Hedge

March 28
1) Expect to receive $500,000 U.S. in sales receipts in September. Spot rate = $1 Cdn. = $ .8083 U.S.
2) Negotiate 6 month forward contract with bank. Forward rate = $ .8017 U.S. (Globe and Mail reported Foreign Exchange rates March 28/88).

This transaction locks in an exchange rate @ .8017 on the $500,000 U.S sales receivables

i.e. $500,000 U.S. = $623,675 Cdn. @ $1 Cdn. = $ .8017 U.S.

September 30 Receive $500,000 U.S. and purchase Canadian dollars from banker at agreed forward rate of $1 Cdn. = .8017 U.

The insurance policy of this transaction protects the fish processor from adverse currency movements, e.g., if the spot rate on September 3 turned out to be .8150, then a hedged currency position would look lik the following:

Hedged Position:

$500,000 U.S. @ .8017	= $ 623,675 Cdn.	Forward Sale Price	Sept. 30
500,000 U.S. @ .8150	= 613,497 Cdn.	Spot Price	Sept. 30
Currency savings	$ 10,178 Cdn.		

If the Canadian dollar weakens instead of strengthening as in the above example, the fish processor would forego a currency gain position but receive insurance against currency losses.

Some factors concerning forward sales contracts with banks are worth noting.

1) The bank makes its profit on the spread between the spot rate and the forward rates offered to clients. There are no overt commission charges as with futures brokers but the charges are built into spread differentials.

2) The banks will not offer forward contracts longer than a year.

3) The spread charged by the banks is inversely related to the dollar value of the forward contract sought. For example, a $100,000 forward sale would cost less (lower spread) than a $25,000 forward sale.

4) A regular customer with the banks can negotiate the spread charge, i.e., a regular customer might be charged a lower point spread as opposed to a smaller, non-regular customer.

5) The banks require that a forward sale customer establish a line of credit as collateral for forward sales transactions. This is in case of default by the customer.

6) An interesting feature of forward contract sales is something called an "Option dated forward contract", which allows a period of from 2-30 days over which to settle the contract. This reduces settlement risk resulting from uncertain timing of cash flows.

Hedging Examples - Fish Processing Industry

This section portrays actual examples of a fish processing firm using hedging techniques as an insurance policy against fluctuating currencies. First of all, a processing plant manager must have an idea of his fish sales in the U.S. market for the hedging period under consideration, e.g., a year, and he should be able to reproduce an estimate of his expected yearly sales on a monthly basis.

There are many variables which affect sales revenue and which the firm may be unable to estimate; therefore it is best for the manager to calculate a margin of error into his forecasts. For example, a manager may assume that the upcoming year will be similar to the past year on a monthly basis. To allow for errors in his forecast, he assumes that he will only receive 60% of sales revenue compared to the previous year and, as such, will only be willing to hedge 60% of his projected $ U.S. receivables.

For the sake of brevity in the following example, the manager is only willing to hedge fish sales receivables for the months of June, July and September. He could just as easily hedge for every month of the year if he so wished. The results would be the same as the example herein. Under these conditions, he expects U.S. dollar sales revenue figures for the upcoming months as indicated below.

Projected
Monthly Fish Sales Receivables
June, July, September
1988

Month	Total Fish Sales Receivable $ U.S.	60% Margin of Error $ U.S.
June	$ 436,000	$ 261,600
July	436,000	261,600
September	872,000	523,200
Total	$1,744,000	$1,046,000

Using the information in the table, three exchange rate scenarios are presented to determine and compare the effects of using hedges. The scenarios include a strengthening, a weakening, and a stable Canadian dollar vis-a-vis the U.S. dollar. In the examples that follow, forward sales contracts arranged through banks are used as the hedging technique but the results would be similar using the futures markets with slight differences due to transactions costs.

The processor may arrange separate forward sales contracts for each month that he expects to sell his product, or he can isolate months that he expects to have the highest sales revenue (as in our example). This is entirely up to the processor and the bank. The following assumptions are included in our hedging examples:

- Option dated forward contracts are used to allow for uncertain timing of receivables.
- The bank will charge a spread charge which is built into the stated forward sales contract.
- The processor has fulfilled all his commitments to the bank and is an established customer.
- April 1 is the date the processor negotiates his forward sales contracts for the months of June, July and September.
- The quoted rates are forward mid market rates as quoted daily in the business section of The Globe and Mail. These are not the rates that can be negotiated throughout a given day, but are close enough for illustration purposes.

Table 1
Forward Sales
Hedging Examples

Month	1 60% Monthly Receivables U.S. $	2 Spot Cdn. $ in U.S. cents	3 Monthly Receivables @ Spot rate Cdn. $	4 Forward Sales Price Negotiated with Bank Cdn. $ in U.S. cents*	5 Monthly Receivables @ Forward Rate Cdn. $	6 Currency Gain (Loss) Col. 5-Col. 3
Scenario 1: Strengthening Canadian $ (as measured by spot rate)						
June	261,600	.8100	322,963	.8046	325,130	2,167
July	261,600	.8150	320,982	.8035	325,575	4,593
September	523,200	.8200	638,049	.8004	653,673	15,624
Total			1,281,994		1,304,378	22,384
Conclusion Scenario 1: with a strengthening Canadian dollar, currency losses of $22,384 Cdn. have been avoided						
Scenario 2: Weakening Canadian $ (as measured by spot rate)						
June	261,600	.8050	324,949	.8046	325,130	161
July	261,600	.8000	327,000	.8035	325,575	- 1,425
September	523,200	.7950	658,113	.8004	653,673	- 4,440
Total			1,310,082		1,304,378	(5,704)
Conclusion Scenario 2: with a weakening Canadian dollar, a currency gain of $5,704 Cdn. is not realized						
Scenario 3: Stable Canadian $ (as measured by spot rate)						
June	261,600	.8030	325,778	.8046	325,130	- 648
July	261,600	.8030	325,778	.8035	325,575	- 203
September	523,200	.8030	651,556	.8004	653,673	2,117
Total			1,303,112		1,304,378	1,266
Conclusion Scenario 3: with a stable Canadian dollar currency, losses are avoided and large gains are unrealized.						

* Actual mid market rates as of April 5/88, The Globe and Mail - Foreign Exchange quotes

Column 3 of Table 1 shows what a fish processor would have received in Canadian dollars, if he decided not to use currency hedging and relied solely on the value of the currency rate at time of sale. Column 5 indicates the value of his receivables at locked in rates using hedging. The table makes it apparent that hedging locks in exchange rates for future periods since profits on Canadian forward sales offset losses on actual cash transaction and vice versa. This enables the processor to accurately budget Canadian dollar revenues by avoiding fluctuations. For example, hedging eliminates any foreign exchange losses which may result if the Canadian dollar strengthens (Scenario 1). It does, however, sacrifice any windfall gains if the Canadian dollar should weaken (Scenario 2) and remains relatively neutral or unchanged with maybe small gains or losses depending upon the level at which the dollar stabilizes (Scenario 3). In our example, Scenario 3 showed that the processor avoided a small currency loss of $1,266 Cdn.

A fish processor thus must make a corporate decision as to whether he is in the fish business, where his expertise lies, or whether he is a foreign exchange speculator. He must weigh the advantages of easier budgeting plus insurance against any potential windfall gains that he may receive by speculating that the Canadian dollar will move in his favour.

If he is in the fish business, then hedging foreign exchange is a necessary business tool. If he is a speculator, then good luck!

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APPENDIX I

Outlook for the Canadian Dollar

This section is not intended to be an economic examination of all the variables that shape a country's exchange rate value. Such an exercise is certainly beyond the author's expertise and, for that matter, most professional economists' opinions on this matter are open to question. What will be pointed out here, however, are certain factors which might have an influence on the trend of the Canadian dollar which may continue in an upward mode.

Many factors affect a country's exchange rate such as:

- favourable political and social climate
- stable government and policies
- trade and budget deficits
- outlook for interest rates and inflation
- GNP growth prospects
- natural resources
- trade barriers or lack of trade barriers (Free Trade)

A host of other variables could just as easily be included in the above list. Suffice it to say, the huge amounts of international money flows that are seeking the best returns on a worldwide basis are attracted to countries with favourable outlooks for the above variables. A useful proxy for many of the above listed variables is interest rates and inflation rates since positive or negative changes in many of the variables mentioned are often reflected in a country's level of interest rates and inflation. Thus a country with a high level of interest rates on its money market instruments, which is not being eaten up by the ravages of inflation, will attract international money flows and by doing so increase the exchange rate value of that country's currency vis-a-vis other countries.

Consider the most recent real rate of return figures (interest rates adjusted by inflation) for the world's major industrialized nations.

Country	1 3 Month Money Market Rate	2 Annual CPI	3 Real Rate of Return (1 - 2)
Canada	8.60	4.0 Feb.	+ 4.60
United States	6.57	4.1 Feb.	+ 2.47
Britain	9.31	3.3 Jan.	+ 6.01
West Germany	3.40	0.9 Feb.	+ 2.50
Japan	3.81	1.1 Jan.	+ 2.71
France	7.25	2.4 Jan.	+ 4.85
Switzerland	1.81	1.6 Jan.	+ 0.21

Source: The Economist March/88

Canada appears in a favourable light along with the British pound and French franc in terms of attracting foreign money flows searching for positive rates of return. A continuation of these trends will have an effect to increase the value of the Canadian dollar. This is especially evident against the U.S. dollar where Canada's real rate of return is nearly double the U.S. rate.

Such factors add strength to the Canadian dollar under the perceived willingness of economic policies to be maintained in a favourable mode. Recent evidence of this in Canada is John Crow, Governor of the Bank of Canada, who is maintaining a high interest rate posture in the battle against inflation even during this period of low inflation (The Globe and Mail, March 21/88). However, political factors might influence this policy, in terms of easing interest rates, in the future. This remains to be seen.

The Free Trade Agreement between Canada and the United States is the envy of the world. This can only have the advantage of worldwide interest in Canada with Free Trade access to the world's biggest and richest market. Many foreign businesses may be eyeing investments in Canada as a steppingstone into the giant U.S. market. This can only strengthen the Canadian dollar.

Another factor that could strengthen the Canadian dollar vis-a-vis other world currencies is any possibility of an inflationary uptick. At this stage in the business cycle, after 8 years of low interest rates and inflationary rates, the economic recovery from the 1980-81 recession is getting very old. With business and manufacturing concerns operating at full capacity utilization rates and unemployment levels at low levels (i.e., full employment in the economy), and a depreciating U.S. dollar, inflationary pressures are still evident in North American economies. Overheating of the economies could become possible in this stage of the business cycle even in lieu of the supposedly deflationist impact of the stock market crash of October/87.

Canada, with its huge supplies of natural resources, is perceived worldwide as one giant inflation hedge with its wealth of mines, minerals, lumber, and other hard assets. If there is a possibility of a return to an inflationary environment worldwide, the Canadian dollar should remain strong against other currencies.

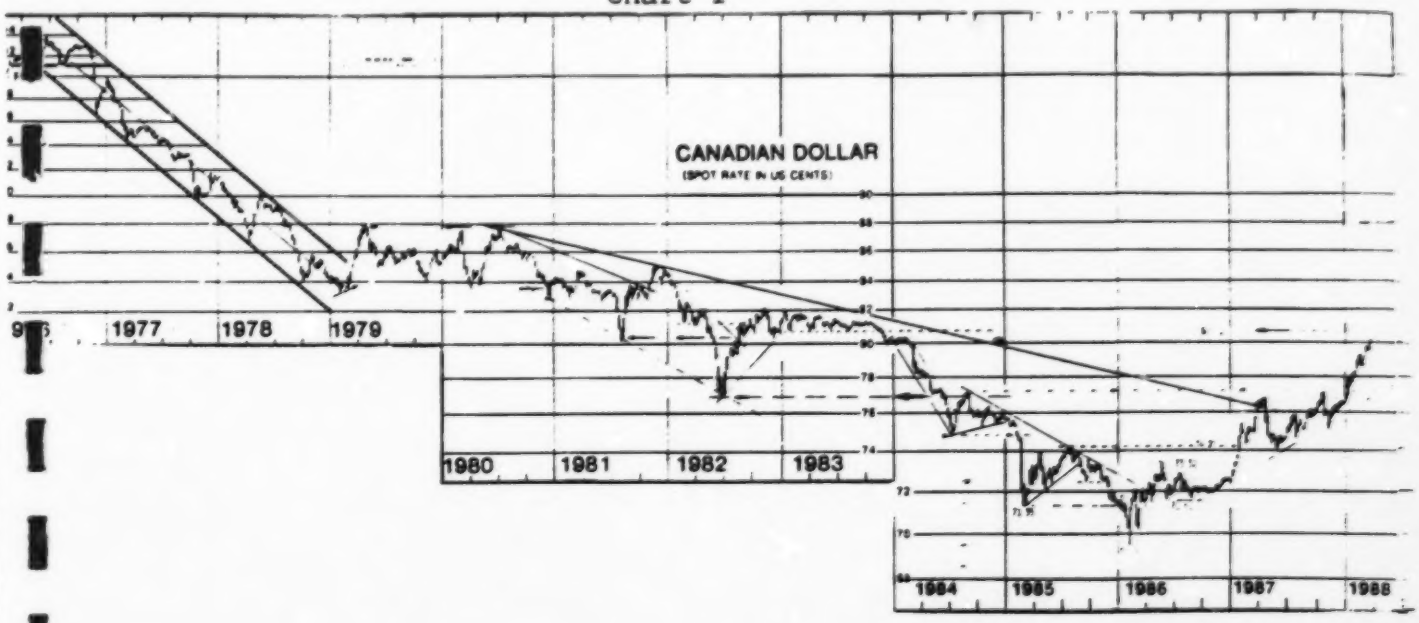
A recent comment by Rundt & Associates, knowledgeable consultants on international business (Barrons Financial Weekly, March 28, 1988) confirms the strength of the Canadian dollar:

"The Canadian dollar has now decisively broken through its psychologically important 80 cents U.S. barrier and indications are that its impressive rally from its all time nadir of 69 cents in 1986 will continue.... The Bank of Canada's stricter monetary and interest rate policy than has been followed by the U.S. Federal Reserve....makes the Canadian dollar a good bet for international capital seeking high returns."

Trends in Support of a Stronger Canadian Dollar

Consider the following two charts which support a continuing upward trend of the Canadian dollar against its U.S. counterpart. Chart 1 shows the Canadian dollar spot rate in U.S. cents since 1976.

Chart 1



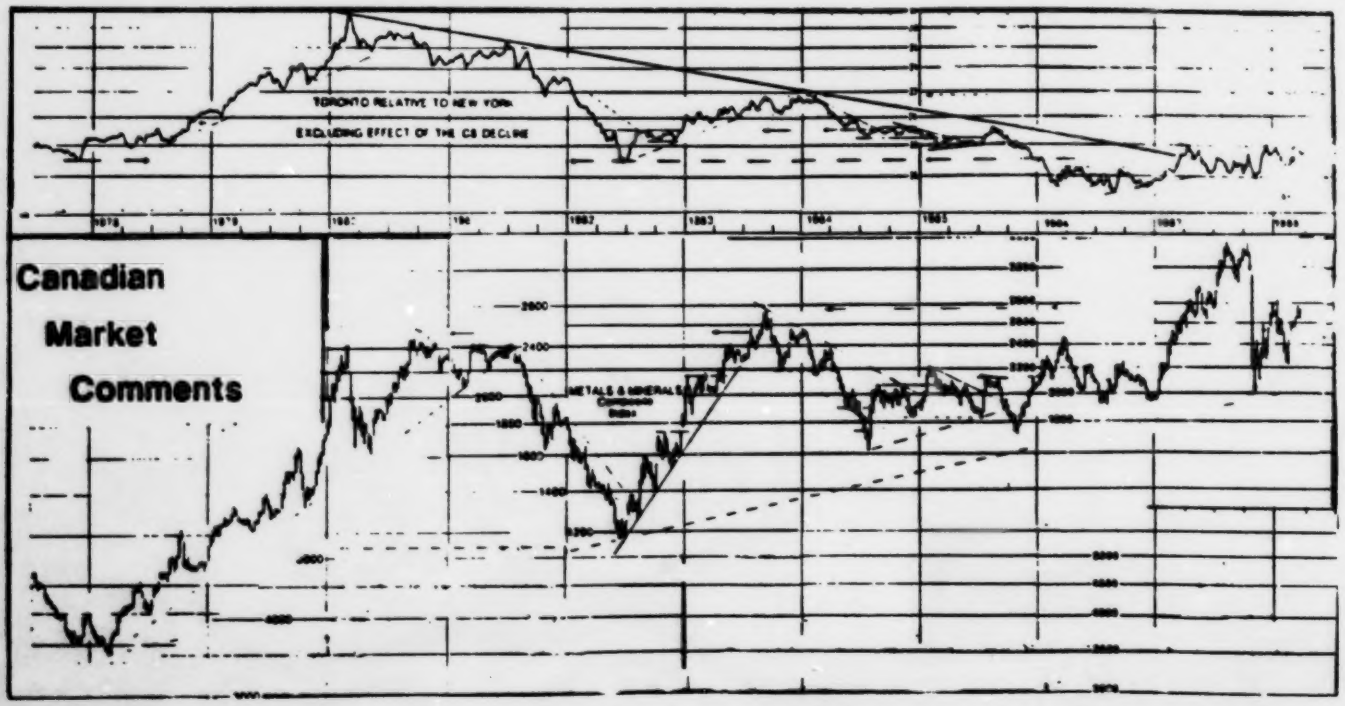
The trend of the Canadian dollar has been down since 1976 until it bottomed out in the first quarter of 1986 at .6950 U.S. cents. Since then, it has risen up to 80 U.S. cents in March 1988. Some things are evident from examining this chart:

1) A trait of currencies is that when a trend begins, it plays itself completely out over an extended period of time. A 10 year downward trend in the Canadian dollar has clearly been reversed starting in 1986 with the biggest upward movement in the Canadian $ to March/88 to date. Is this to be an extended upward movement for the next few years?

2) The sharp downward trend channel from 1976 to 1979 was arrested and moved sideways during 1979 and 1980 when the world had a large inflationary runup. When the inflationary environment was arrested in 1980-81, the Canadian dollar continued on its downtrend. Thus the recent strength of the Canadian dollar might be signalling another inflationary period during which the Canadian dollar could gain considerable strength.

Chart 2 below examines the possibility of continued strength in the Canadian dollar from another perspective. The relative strength of the main stock exchanges in Canada and the United States, i.e., the TSE300 relative to the NYSE.

Chart 2



Following the line of reasoning that Canada is perceived as a natural resource economy, then its stock exchange will underperform its U.S. counterpart during a declining inflationary environment and will outperform the NYSE during perceived and realized inflationary periods. In the same vein, the Canadian dollar will rise or fall against the U.S. dollar. The foregoing chart confirmed this reasoning by indicating a stronger relative strength of the TSE300 to the NYSE during 1978-81 a period of rising inflation - and during the period 1982-83 when commodity prices had an unexpected large flareup which threatened returned inflationary fears. Note the large runup in the metals and minerals composite index during 1982-83 which also coincided with an increase in the Canadian dollar during the same time period.

Concluding, the recent strong showing of the Canadian dollar against the U.S. dollar could be an extended move for the next few years. However, there is no assurance of this, but the possibility is there and it is real. There has been no attempt here to project future exchange rate levels. This is left to crystal ball gazers (or economists). What is pointed out is the possibility of continued strong advances and if this is the case, the Nova Scotia fish processing industry could be positioned to suffer substantial currency losses if it does not take steps to protect itself.

APPENDIX II

Commodity Firm Futures Market	Bank Forward Sales
Charges	
Commissions - fixed @ approx. $70 U.S./contract - may vary among firms. Basis - varies according to interest rates and volatility and duration of contract.	Banks charge a spread which is built into the negotiated forward contract rate - varies with amount of contract and credit worthiness of customer.
Perceived Risks	
Futures market has a perceived aura of danger, huge profits (losses) and great speculation - not true if used for pure hedging.	Perceived as not being as speculative as the futures market People are more likely to deal with banks as opposed to commodity firms.
Cash Flow	
More difficult since sales receipts can come in weekly opposed to a monthly date when the futures contract has to be settled.	Option forward sales offer a period of grace of from 2-30 days to settle the contract. Helpful during months of uncertain timing of receivables.
Professional Advice	
A firm will offer professional advice on the direction of the Canadian dollar and can advise a fish processor to hedge or not to hedge for a particular period - very beneficial and biggest advantage offered by a commodity firm.	A bank is not an advisory service but it will offer advice on the direction of currency movements.